

CLAIMS

1.- Process for alcoholic fermentation comprising the use of a fermentation micro-organism, characterized in that it also comprises the use of at least one mineral-rich or mineral-enriched yeast as a nutrient source for said fermentation.

2.- Process according to claim 1, characterized in that said at least one mineral-rich or enriched yeast belongs to the *Saccharomyces* genera or to the *Kluyveromyces* genera.

3.- Process according to any one of claim 1 or 2, characterized in that said at least one mineral-rich or mineral-enriched yeast is prior to use obtainable by adding 1,000 to 200,000 ppm (relative to the weight of the yeast, as measured on a dry weight basis) of a salt of said mineral to a live culture of said micro-organism at a temperature of 4-40°C at a pH of between 3.5 to 7.0, for a period of 1-24 hours, so as to allow said micro-organism to incorporate said mineral.

4.- Process according to claim 3, characterized in that said temperature is in the 25-32°C range.

5.- Process according to claim 3, characterized in that said pH is in the 4.6-6.6 range.

6.- Process according to claim 3, characterized in that said time period is in the 2-16 hour range.

7.- Process according to any one of claims 3-6, characterized in that said salt is chosen among the group consisting of acetate, caprylate, carbonate, chloride, chromate, gluconate, iodate, lactate, oleate, oxide,

perchlorate, peroxide, phosphate, salicylate, sulphate, sulphide, tartarate or valerate.

5 8.- Process according to any one of claims 3-7, characterized in that said mineral incorporation corresponds to an absorption and/or an adsorption.

9.- Process according to any one of claims 1 to 8, characterized in that said mineral is a metal capable of altering the metabolism of said fermentation.

10 10.- Process according to any one of claims 1 to 9, characterized in that said mineral is chosen among the group consisting of zinc, magnesium and manganese.

11.- Process according to any one of the preceding claims, characterized in that said at least one mineral-rich or enriched yeast contains before being used a concentration in said mineral ranging from
15 1,000 to 200,000 ppm.

12.- Process according to any one of the preceding claims, characterized in that said at least one mineral-rich or enriched yeast is used under a form chosen among the group consisting of a living form and a dead form.

20 13.- Process according to any one of the preceding claims, characterized in that said at least one mineral-rich or enriched yeast is used under a form chosen among the group consisting of a dry form, a liquid form, a frozen form, a freeze-dried form, a paste, a powder.

25 14.- Process according to any one of the preceding claims, characterized in that said at least one mineral-rich or enriched yeast is used by directly adding it at at least one step of said fermentation process.

15.- Process according to claim 14, characterized in that said addition is performed directly into at least one element selected from the group consisting of a fermenter, a boiling vessel, any vessel between the two, a fermentation micro-organism holding vessel, a fermentation micro-organism holding vessel.

16.- Process according to any one of the preceding claims, characterized in that said yeast is used at such a quantity and/or at such a concentration in said mineral that it leads to an increase of at least 0.05 ppm of the mineral content of the substrate of said fermentation.

17. - Process according to any one of the preceding claims, characterized in that said alcoholic fermentation can lead to the production of beer.

18.- Process according to any one of the preceding claims, characterized in that said alcoholic fermentation can lead to the production of an alcohol chosen among the group consisting of whisky or sake as well as fruit, sugar or honey based fermentations, such as wine, brandy, cider, fruit wines, mead, rum, tequila, industrial alcohols, potable alcohols.

19.- Use of a fermentation micro-organism and of at least one mineral-rich or mineral-enriched yeast as a nutrient source in the production of an alcohol by fermentation.

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